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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
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| 09/924,960 | 08/08/2001 | Felix A. Levinzon | 1575.2003-001 | 2004 |

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Robert T. Conway, Esq.
HAMILTON, BROOK, SMITH & REYNOLDS, P.C.
Two Militia Drive
Lexington, MA 02421-4799

| EXAMINER |
|---|
| CHAPMAN JR, JOHN E |

| ART UNIT | PAPER NUMBER |
|---|---|
| 2856 | |

DATE MAILED: 06/19/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

| Office Action Summary | Application No. | Applicant(s) | |
|---|---|---|---|
| | 09/924,960 | LEVINZON, FELIX A. | |
| | Examiner | Art Unit | |
| | John E Chapman | 2856 | |

*-- Th MAILING DATE of this communication appears on th cov r sheet with the correspondence address --*

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

1)☒ Responsive to communication(s) filed on *21 April 2003* .

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

4)☒ Claim(s) *1-58* is/are pending in the application.

4a) Of the above claim(s) *14-19,33,34 and 51-55* is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-11,13,20-32,35-48,50 and 56-58* is/are rejected.

7)☒ Claim(s) *12 and 49* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

**Application Papers**

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11)☐ The proposed drawing correction filed on _____ is: a)☐ approved b)☐ disapproved by the Examiner.

If approved, corrected drawings are required in reply to this Office action.

12)☐ The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. §§ 119 and 120**

13)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____ .

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

14)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

a) ☐ The translation of the foreign language provisional application has been received.

15)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

**Attachment(s)**

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ .
4) ☐ Interview Summary (PTO-413) Paper No(s). _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: .

## DETAILED ACTION

1. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

2. Claims 4 and 58 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 4 suggests that channels 2 and 4 include an amplifier distinct from the filter. However, it is not clear that channels 2 and 4 include both an amplifier and a filter. Rather elements 6 and 8 are described as "filter amplifiers."

Regarding claim 58, there is no antecedent basis for the "amplifier" in line 1. Furthermore, "said filter" is ambiguous since claim 1 recites a pair of filters. Hence, it is not clear whether both filters, or only one, is combined with an amplifier. Finally, it is not clear what it means to combine the filer and amplifier "in a single stage." Does this mean a "filter amplifier"?

3. Claims 1-6, 20-28, 35-43 and 56-58 are rejected under 35 U.S.C. 102(b) as being clearly anticipated by Harms et al.

Harms et al. discloses a system for converting sensed force into electrical signals comprising a piezoelectric transducer 1, a high-pass filter 9 and a low-pass filter 10.

Regarding claim 4, low pass and high pass filters conventionally comprise an amplifier.

Regarding claim 5, the filters provide an offset signal by virtue of the DC offset (col. 11, lines 40-43).

Regarding claim 6, the filters are isolated by virtue of being in parallel circuits.

4. Claims 1, 2, 4, 6, 20-26, 28, 35-41, 43 and 56-58 are rejected under 35 U.S.C. 102(a) as being clearly anticipated by Pflueg.

Pflueg discloses a system for converting sensed force into electrical signals comprising a sensor 60, and two filters 100 and 101 in Fig. 7B.

5. Claims 1, 2, 4, 6-11, 20-26, 28-31, 35-41, 43-48 and 56-58 are rejected under 35 U.S.C. 102(b) as being clearly anticipated by Flechsig et al.

Flechsig et al. discloses a system for converting sensed force into electrical signals comprising a piezoelectric transducer 610, a high-pass filter 632 and a low-pass filter 642.

Regarding claim 4, amplifiers 630 and 640 may be deemed part of low pass filer 632 and high pass filter 642.

Regarding claim 6, the filters are isolated by virtue of amplifiers 630 and 640.

Regarding claim 7, amplifier 640 comprises a buffer. It is noted that applicant uses a buffer 10 implemented as a unity gain operational amplifier.

Regarding claim 9, amplifiers intrinsically possess an impedance.

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

7. Claims 13, 32 and 50 are rejected under 35 U.S.C. 103(a) as being unpatentable over Harms et al. or Pflueg or Flechsig et al.

Regarding claims 13, 32 and 50, filters inherently possess an input impedance. The only difference, if any, between the claimed invention and the prior art consists in the particular value of the input impedance. A filter having an input impedance greater than 10 M-Ohm would have worked in substantially the same manner to produce substantially the same results as the prior art, and therefore the particular value would have been obvious to one of ordinary skill in the art.

8. Claims 12 and 49 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

9. Applicant's arguments filed April 21, 2003 have been fully considered but they are not persuasive.

Applicant argues that operational amplifier 5 of Harms et al. "decouples" the sensor 1 from the high pass filter 9 and the low pass filter 10. However, operational amplifier 5 of Harms

et al. directly couples the electrical charge output of the sensor 1 to the high pass filter 9 and the low pass filter 10. See col. 11, lines 40-60. It is not clear how operational amplifier 5 of Harms et al. "decouples" the sensor 1 from the filters, while resistors R3 and R4 and capacitor C9 in Fig. 2 of applicant do not "decouple" the sensor 1 from the low frequency channel filter 6.

Applicant argues that the output of transducer 60 of Pflueg is amplified through amplifier 80 before being split into separate channels in Fig. 7B. Nevertheless, the amplifier 80 directly connects the transducer to the channels, and so the channels are directly connected to the transducer.

Applicant argues that channels 737 and 747 of Flechsig et al. are not "essentially directly electrically coupled to the sensor" in view of preamplifier 720. However, it is not clear why preamplifier 720 does not directly electrically couple the sensor 710 to the channels 737 and 747. Furthermore, it is not clear why a preamplifier precludes direct coupling, whereas a pre-filter (page 8, line 1, of applicant) does not.

10. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL.** See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period

will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Mr. Chapman whose telephone number is (703) 305-4920.

Any inquiry of a general nature or relating to the status of this application should be directed to the Group receptionist whose telephone number is (703) 308-0956.

JOHN E. CHAPMAN
PRIMARY EXAMINER